CLAIMS

What is claimed is:

1. A dynamic random access memory device comprising:

a storage trench;

a storage conductor within said storage trench;

a lip strap connected to said storage conductor; and

a control device electrically connected to said storage conductor through said lip strap.

2. The device in claim 1, wherein said trench has a corner adjacent said control device and said lip strap comprises a conductor surrounding said corner.

3. The device in claim 1, wherein said control device includes a control device conductive region adjacent said trench and said lip strap comprises a conductor extending along a side of said trench and along a portion of said control device conductive region.

4. The device in claim 1, further comprising a collar insulator along a top portion of said trench, wherein said lip strap comprises a conductor extending from a top of said collar to a top of said trench, said lip strap further extending

along a surface of said device adjacent said trench and perpendicular to said trench.

5. The device in claim 4, further comprising a node dielectric lining said trench, wherein said lip strap surrounds an upper portion of said node dielectric adjacent said top portion of said trench.

6. The device in claim 1, further comprising a trench top oxide, wherein said lip strap extends into said trench top oxide and forms an inverted U-shaped structure.

7. The device in claim 1, wherein said lip strap comprises a conductor extending along two perpendicular portions of a top corner of said trench.

8. A method of forming a dynamic random access memory structure, said method comprising:

forming a trench within a substrate;

filling said trench with a trench conductor;

forming a pad oxide along a surface of said substrate adjacent said trench;

forming a collar along an upper portion of said trench such that said collar insulates said substrate from said trench conductor;

recessing said collar and said pad oxide;

depositing a lip strap over said trench conductor and in recesses produced by said recessing; and

forming an isolation region adjacent said lip strap.

9. The method in claim 8, further comprising forming a control device adjacent said trench, wherein said trench has a corner adjacent said control device and said lip strap comprises a conductor surrounding said corner.

10. The method in claim 8, wherein said forming of said control device includes forming a control device conductive region adjacent said trench and said lip strap comprises a conductor formed along a side of said trench and along a portion of said control device conductive region.

11. The method in claim 8, further comprising forming a collar insulator along a top portion of said trench, wherein said lip strap comprises a conductor formed to extend from a top of said collar to a top of said trench, said lip strap further extending along a surface of said device adjacent said trench and perpendicular to said trench.

12. The method in claim 11, further comprising lining said trench with a node dielectric, wherein said lip strap surrounds an upper portion of said node dielectric adjacent said top portion of said trench.

13. The method in claim 8, further comprising forming a trench top oxide, such that said lip strap extends into said trench top oxide and forms an inverted U-shaped structure.

14. The method in claim 8, wherein said lip strap comprises a conductor formed along two perpendicular portions of a top corner of said trench.

15. A method of forming a dynamic random access memory structure, said method comprising:

forming a trench within a substrate;

filling said trench with a trench conductor;

forming a pad oxide along a surface of said substrate adjacent said trench;

forming a collar along and upper portion of said trench such that said collar insulates said substrate from said trench conductor;

forming an isolation region adjacent said trench conductor;

recessing said collar and said pad oxide; and

depositing a lip strap over said trench conductor and in recesses produced by said recessing.

16. The method in claim 15, further comprising forming a control device adjacent said trench, wherein said trench has a corner adjacent said control device and said lip strap comprises a conductor surrounding said corner.

17. The method in claim 15, wherein said forming of said control device includes forming a control device conductive region adjacent said trench and said lip strap comprises a conductor formed along a side of said trench and along a portion of said control device conductive region.

18. The method in claim 15, further comprising forming a collar insulator along a top portion of said trench, wherein said lip strap comprises a conductor formed to extend from a top of said collar to a top of said trench, said lip strap further extending along a surface of said device adjacent said trench and perpendicular to said trench.

19. The method in claim 11, further comprising lining said trench with a node dielectric, wherein said lip strap surrounds an upper portion of said node dielectric adjacent said top portion of said trench.

20. The method in claim 15, further comprising forming a trench top oxide, such that said lip strap extends into said trench top oxide and forms an inverted U-shaped structure.